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## Journal of the Society of Arts.

FRIDAY, JUNE 27, 1862.

### INTERNATIONAL EXHIBITION of 1862.

#### GUARANTEE.

The Council beg to announce that the Guarantee Deed is still lying at the Society's House for signature, and they will be much obliged if those gentlemen who have given in their names as Guarantors, as well as others interested in the Exhibition, will make it convenient to call there and attach their signatures to the Document. Signatures for sums amounting in the aggregate of £452,100, have been attached to the Deed.

#### DECLARATION OF THE PRIZES TO EXHIBITORS.

On Friday, the 11th July, a State Ceremonial will take place, when the Prizes Awarded to Exhibitors will be officially declared. The admission to this Ceremonial will be by Season Tickets, and by tickets which, if obtained before the 8th of July, will be 5s. each; if on or after the 8th of July, 7s. 6d.

#### CONVERSAZIONI.

The second and third Conversazioni of the present season will be held at the South Kensington Museum, on the 9th of July and the 8th of October.

#### ELEVENTH ANNUAL CONFERENCE.

The Eleventh Annual Conference of the Representatives of the Institutions in Union, and the Local Educational Boards, with the Council of the Society, was held at the Society's House on Monday, the 23rd inst., at 12 o'clock, a.m. Sir Thomas Phillips, F.G.S., Chairman of the Council, presided.

The Report of the Proceedings of the Conference will appear in the next number of the *Journal*.

#### ONE HUNDRED AND EIGHTH ANNIVERSARY DINNER.

The One Hundred and Eighth Anniversary Dinner of the Society took place in the central refreshment saloon of the International Exhibition, on Tuesday, the 24th inst., the Right Hon. W. E. Gladstone, M.P., Chancellor of the Exchequer, in the chair.

The chairman was supported by Lord Harris, Monsieur Michel Chevalier, Sir Thomas Phillips, Monsieur Arlès Dufour, Vice-Chancellor Sir Wm. Page Wood, the Solicitor-General, the

Chevalier de Schwarz, his Excellency Nazim Bey, the Vicomte de Villa Maior, Monsieur F. Fortamps, Sir C. Wentworth Dilke, Bart., Count Waldstein, Sir William Holmes, Sir Joshua Rowe, Archdeacon Lane Freer, Mr. M. H. Marsh, M.P., Mr. W. P. Brown-Westhead, M.P., &c.

The band of the Distins was in attendance.

Grace having been said by ARCHDEACON LANE FREER,

The CHAIRMAN said it was hardly necessary for him to say that he was about to follow the familiar and traditional practice in giving, as the first toast of the evening, "The Health of her Most Gracious Majesty." In giving that toast it must not be forgotten that the whole of those present were not Englishmen, yet, although not all Englishmen by birth, he was quite sure they were all Englishmen for the purposes of this toast, for it had been the happy lot of the sovereign of these realms that the fame of her unobtrusive virtues had gone forth throughout the world, and that her admirable character had not only established her in the hearts and affections of her own people, but had positively become a bond of union between the nations of Europe. He was satisfied, therefore, that they would, with the utmost cordiality of sentiment, unite in drinking the toast with all the honours.

The toast was responded to with the utmost loyalty.

The CHAIRMAN said the next toast he had to propose was "The Prince of Wales and the rest of the Royal Family." The calamity which they had all so much occasion to deplore, had, as they knew, interposed a barrier between her Majesty and the interesting events connected with the International Exhibition—a barrier which, unfortunately, had not been, and could not be surmounted. But this had not prevented the younger members of the Royal family from testifying their interest in the Exhibition, nor from availing themselves of the privilege—for it was a privilege to all persons, in whatever rank of society they moved—of inspecting the treasures which it contained. It could not be doubted that they, as they grew in years, would imbibe more and more fully, partly from their own convictions, and partly by reverence for parental tradition, a sense of the value and the importance of these exhibitions. Upon every occasion it was a matter of rejoicing to all her subjects to join with the name of their Sovereign the names of those who constituted the future hope of the country, and more especially had he pleasure in asking them to drink this toast, when they connected those names with the place within which they sat, and the magnificent collection of treasures of industry and art which were under the same roof with themselves.

The toast having been drunk with all the honours,

The CHAIRMAN proposed, as the next toast, "Prosperity to the Society for the Encouragement of Arts, Manufactures, and Commerce." In doing so, he said the toast was one which he trusted, and indeed was sure, would attract a special share of interest and approval. If any one who was ignorant of our country, and who had but just heard of the existence of the Society of Arts, on arriving for the first time in the metropolis, were to pay a visit to the International Exhibition, and witness the stage of development which industry—and they might now begin to say, not only industry, but fine art in connection with industry—had attained, perhaps he would be tempted, as his first thought, to conceive this idea, that in a country that had made such considerable progress, it was of very little consequence whether a Society for the Encouragement of Arts, Manufactures, and Commerce, existed or not. And he (the Chairman) for one was free to say, that if they were to contemplate the foundation of such a Society in the year 1862, no doubt it would be true that the relative importance of an institution of this kind was far less now than at former periods. But if they wished to appreciate the merits of this Society—if they wished to measure its performances, they must not look at the harvest only which was now being gathered, but they must go back to

the day when the seed was sown, perhaps in wintry weather, with little encouragement, and with little hope by those who felt that they had an important purpose, beneficial to mankind, to accomplish, and who were determined to the best of their power to give effect to that purpose, whether the circumstances of the moment were propitious or whether they were not. It was now, he believed, more than a century—if they were to be exact it was one hundred and eight years—since this Society took its origin. Let them go back to the state of things which then prevailed in this country. It was a period which, perhaps he might say, was distinguished by a remarkable stagnation in most of what pertained to Art, and in all of what pertained to Industry. A great epoch was about to arrive at the commencement of the reign of George III., but just one hundred and eight years ago was a dark period in the state of this country, so far as regarded all the objects to which this Society determined to devote itself—he meant the encouragement either of Art, or Manufacture, or Commerce. The population of England had long been almost stationary; a constant succession of wars had retarded the growth of wealth; the roads and communications of the country had scarcely begun to be improved, the spirit of improvement was a thing almost unknown. We might, indeed, have had some beautiful manufactures, we might, for example, have had a manufacture of porcelain at Chelsea which might still claim fellowship, if not enter into rivalry, with some of the most distinguished manufactories of porcelain in the world. But that was no indication of the progress of art among the people; that was the luxury of a select few. It was by scores, it was, at the most, by hundreds, and scarcely even by hundreds, that those might be counted, who, at that period, either felt an interest or had attained to any proficiency in the application of art and of the principles of beauty to industrial products. It was, therefore, in a dark period that the founders of this Society set themselves to their work; and those who now contemplated with admiration the immense developments which this age had seen, and who regarded with confidence the future progress which would be achieved (because in these developments was contained the promise of the future), must not forget through what difficulties, in their early stage, those developments were accomplished. Let them look back with gratitude and something of reverence to those who must have acted upon a principle applicable to human things as well as to divine—he meant that principle of faith which enabled men, conscious of high and beneficial purposes, to look beyond, and to overcome the difficulties of the moment, and to sow the seed, the fruit of which was to be borne in following and even distant generations. He might also notice, especially with reference to the presence of so many of their foreign friends, that it was to no patronage, to no countenance of the state, to no large profusion—indeed, to no application, whether large or small, of the public treasure, that this Society owed the means by which it had achieved this work. It had been from the first—in its infancy, in its youth, and in its maturity—the spontaneous offspring of private intelligence, and had reflected in its proceedings, as a voluntary institution, all the features of the English character. It was in the field, he believed he might say, the first among the voluntary institutions which had successively risen to take in hand the work of human culture. It existed long before the Royal Academy of Painting and of the sister art; it existed before the Royal Academy of Music; it laboured on for a long time in silence and obscurity; it sought to perform its work, as all sensible and practical men will seek to perform it, not by visionary and unattainable means, but by such means as offered themselves to the hand, and were practicable and capable of application. He believed that giving medals for inventions and discoveries was the principal means by which in its early days it endeavoured to encourage Arts, Manufactures, and Commerce. That was a most useful undertaking on the part of the Society,

because it must be recollected that the enlightened spirit which was now seen so widely and extensively pervading the manufacturers and producers of this country or of other countries, was comparatively the growth of recent years. There had, indeed, been other periods in the history of the world, as, for example, in the little peninsula of Greece, or in Italy, during what might be called the latter part of the middle ages, when such an intimate and practical persuasion prevailed of the union between beauty and utility, as being the twin principles upon which all real excellence must depend. There were in those days such developments of Art, that he had almost said even now we had hardly arrived at the point in which we could compete with them. But they were not now speaking of the history of man, but of the history of the Society of Arts, and he must say, so far as they were enabled to examine the period in which this Society took its rise, it was a time when there was not the public spirit which now prevailed; there was not the power of the application of capital which now existed; there was not the extended and philanthropic benevolence which now, to a great degree, pervaded the industrial system; there was not that sense that the works of industry were intended to be associated with the principles of art, and that beauty and utility, so far from being at war with each other, were in nature itself wedded and allied, and were intended by the Author of Nature to be allied and united in the works of man. But he must not pretend to convey to this assembly a history or even a sketch of the operations of this Society, for there were those present, and those whom he hoped they would hear during the evening, who were far more competent and far better entitled to treat this subject. While dealing with such a subject, all the circumstances under which they were met, and the roof under which they were assembled, led them on from the early history of the Society to consider for a moment its later stage. They met under the roof where were collected together the choicest treasures of the industry of the world, and no inconsiderable portion of the treasures of its Art. And here, along with the name of the Society of Arts, it was impossible that the mind should not be directed to the name of him who was lately its President. The Prince Consort, for whom so many tears of sincere sorrow had been shed, was for a long time the President of this Society, and stood in so intimate a relation to it that the mere name of President would not in the slightest degree suffice to convey an idea of that relation. It was in the bosom of this Society that the Prince Consort happily matured that fertile idea—that great idea—destined to take its place among what might be called the discoveries of the present century, that it was practicable to bring together the members of the various families of men in connection with a collection of the objects of their industry, and by means of these collections to achieve at once the most important industrial and the most important social and moral ends. When first the Prince Consort was called upon, standing in a public position, to describe the intention with which the Exhibition of 1851 had been undertaken, he said it was to become a point from which all future progress should be measured; it was to be a point from which all past progress should be compared; it was to afford an opportunity wherein the various nations of the civilized world, with their various capacities, might bring into faithful and close comparison the merits and defects of each, all of them having something to teach, and all of them something to learn; and, whether they were to teach more, or whether they were to learn more, it was beneficial to all. So it appeared to that enlightened mind—that they should avail themselves of the marvellous and multiplied means of communication that modern science had established, and should apply to themselves that searching discipline which was sure to result from the exposure of their productions to the public eye—the public after all being the best critic—from a comparison of all those fabrics, the products of human industry, so as to

enable each nation, so far as practicable, to develop still further its own peculiar excellence and apply a remedy to its own defects. The Exhibition of 1851 served its purpose, and the time that had passed since that had been short, but, even in the eleven years that had elapsed, how remarkable was the progress made, as shown by what had been gathered together under that roof. Each of them himself had the opportunity of judging how far the Prince Consort was warranted in stating that it would be useful to establish a fixed point in that Exhibition of 1851, from which all future progress might be stimulated, and all past progress be measured. Was it not a fact that the minds of all those who, in 1851, directed themselves to the appreciation of what had then been done, spontaneously reverted to that period when they examined the objects now collected? Was it not also a fact that this collection of industrial treasures contained within itself sufficient evidence of progress to warrant the conviction, not only that an immense advance had been made by the industry of civilised man during even this limited period, but likewise that a great impetus has been given, and that a considerable portion of that advance was due to the happy impulse derived from that great comparison first instituted in the year 1851? He believed it was not too much to say that these International Exhibitions had now established themselves as an institution, not in this country alone, but throughout the civilised world; and not only so, but that with the foundation of that institution there would throughout all time be associated, beyond all other names, one illustrious name, which upon that ground alone had made sure its immortality. But he trusted that those who recognised the title to immortality so achieved by the Prince Consort would likewise bear in mind in one sense the humble, but still the true and faithful partner of his labours. The Society of Arts, over which he presided, was his partner either in the conception or in the development and application of this idea, and was entitled to the second place, and to no small share of the honour that belonged to that great conception, and to the manner in which it was carried out. And to have had a share in such a work constituted, he thought, a true title to public gratitude, and was a proof so convincing and demonstrative of the immense usefulness of this Society, as to dispense entirely with the necessity of all attempt at laboured eulogium. The title of the Society, the honour of the Society, the work of the Society, was to be read in the great spectacle for which some 60,000 or 70,000 persons had that day been gathered, and for which, perhaps, as many would gather on every day of the present month, and the months that were to follow. Such a society could not be superannuated. It might be that the world could now dispense with it better than it could have dispensed with it in the days before it had attained to fame, when it was pursuing its useful labours in comparative obscurity, sustained only by the hope of the future; but, at the same time, that which had been useful in former periods would be useful still. This Society, he believed, acting on the practical principles which marked its first inception, would discover for itself new fields of labour, from time to time, according to the exigencies and the opportunities of each successive generation. It now, if he was rightly informed, found a great scope for its utility in promoting the improved education of the working class; and let not that portion of the company who were his own countrymen, conceal it from themselves that although much had been done, much yet remained to do. They were in this important matter of the education, both of the hand and likewise of the eye and of the taste of the working class, still but beginning their career. It was impossible for them to look across the water; it was impossible for them to visit the French court—he would take that as one great and conspicuous instance, because, happily, they were there upon a footing where they could touch these questions without the slightest fear of jealousies being aroused; it was impossible for Englishmen to visit that

court, and see the works of the French, without perceiving the enormous advantage which the present generation of working-men and working-producers derived from the old and long traditional establishment of sound ideas in art and manufacture in that country. It was there that they saw—he would not say in perfection, for doubtless France, like all the rest of mankind, had much to learn, especially from generations that had long gone by—but it was there they saw the effect that was produced when the idea of aiming at true excellence and beauty in the productions of industry had become a familiar idea, part of the patrimony of every man born in the country, drawn in by him with his mother's milk, forming part of the air he breathed, shaping and moulding the tendencies of his mind, and influencing the very muscles of his hand from the moment when he first began to exercise it in work. He thought, therefore, he had to commend the toast he now proposed—"Prosperity to the Society for the Encouragement of Arts, Manufactures, and Commerce," upon this double title—this triple title he might say—the title of what it did in other days without encouragement—the title of what it had been doing in recent days, when its exertions had taken effect and had borne fruit in this magnificent collection of international industry, and the title of what they hoped it would do for Englishmen in promoting henceforth the industrial education of the British workman. This was, he was sure, enough to entitle the Society to their warmest approbation. Most of those present, indeed, had had the opportunity, and had testified by their acts, the interest they felt in its proceedings. For his own part he spoke as one standing outside their circle, but, because he stood outside their circle, he could the more impartially commend this toast to the guests assembled there, and ask their foreign friends to unite with them in cordially drinking prosperity to an institution which had done, which was doing, and which he trusted would do, so much for that progress of industry and free intercourse among the nations of the world, which they were beginning to learn from day to day was not only a power for the increase of wealth and material enjoyment, but was likewise ordained by Providence to be a blessed and a happy instrument for bringing into union the hearts of men, for teaching the nations of the world to know one another, and for accelerating the arrival of that happy day, remote though it yet might be, when, as they trusted, peace would reign among them, and they would learn the arts of strife and discord no more.

The toast was drunk with much enthusiasm.

Sir THOMAS PHILLIPS, F.G.S., Chairman of the Council, said, nothing but the position he held, which rendered it his duty to respond in the name of the Society of Arts to the toast they had just drunk, would have induced him to present himself to their notice at this moment. But it was the duty of the Society, and of himself as their organ on the present occasion, to express their deep gratitude to the right hon. gentleman who occupied the chair, for his presence there that day, and for the magnificent eulogy he had pronounced upon the operations of the Society. It was also his duty, and a gratifying one it was, to express the acknowledgments of the Society to them for the warm manner in which they had received that toast. He hardly felt he ought to occupy their time by any sort of vindication, or rather by any justification of the eulogium pronounced upon the Society of Arts, but he could not help feeling that they would agree to some extent with the right hon. gentleman in the chair, that the Society of Arts, in other times, had done good work, and even in the present day had not been wanting to its old traditions. The encouragement of Arts, Manufactures, and Commerce was its appropriate task, and they would feel, whilst they were in that building at least, that the Society had, in one respect, efficiently discharged its duty, because he could not help feeling they would agree with the observations just made—that International Exhibitions were a prime means of encouraging Arts, Manufactures, and Commerce. They served to make known to the people

of each country the means that existed in other countries for producing, it might be better than they did, the articles they exhibited. It enabled the artisan to compare his own work with the work of other men; and when they remembered the narrow field in which the artisan worked, and the few opportunities that were given him to see the productions of others, an Exhibition like this, which had brought before him producers of all countries, must tend to advance his own knowledge, and to cultivate his own taste. He believed in no respect whatever were these exhibitions of more importance than to the artisan. It was, in fact, by showing him the best works that could be produced in his own specialty that he was enabled to become the best workman in that specialty; therefore it was they looked upon these exhibitions as a means second to none for the accomplishment of that great object. And, undoubtedly, he might say, with modesty on the part of the Society, but with truth—that they owed this Exhibition substantially to the Society of Arts. Let him not be mistaken in claiming for the Society of Arts merits which it did not possess; but in point of fact it was the confidence felt by the public at large in the advice of the Society of Arts in this respect; it was their belief that the Society of Arts was well warranted in recommending them to supply the means whereby this great Exhibition should be brought together; it was the liberality of the English public in answering to the appeal of the Society of Arts; these had been the means by which this noble and magnificent Exhibition had been brought together. He would say no more on the subject of the Exhibition; but their right hon. chairman had referred to another class of duties discharged by the Society of Arts, viz., the encouragement given, now for some years, to the education of the artisan class. He was sure those of them who knew the extent to which intelligence—the extent to which refined taste—had been diffused amongst the working classes during the last few years, could not doubt the importance of that encouragement, and it was the intention of the Society of Arts to go on promoting that object, believing that in so doing they were distinctly promoting the objects for which they were constituted. Their right hon. chairman had alluded to a circumstance which it was hardly possible for anyone connected with the Society of Arts to pass by, viz., the loss of that distinguished Prince who for eighteen years presided over the deliberations of the Society, who gave his counsel when needed, and who, by the remarkable powers of his mind, assisted to make the operations of the Society more generally useful. He did not want to go into figures, but it would show them that the connection of his Royal Highness with the Society was of great, perhaps of incalculable value, when he told them that eighteen years ago the number of members of the Society did not much exceed three hundred, and that at the present moment they were not far below three thousand. The effect of such an alteration in the position of the Society was not to be measured by the addition to its income. It had increased the members greatly in every part of the kingdom, and had given an impetus to the operations of the Society which, he trusted, would not easily be lessened. He might say at this moment it had been an anxious subject of consideration with the Council of the Society how the loss occasioned by the death of His Royal Highness could be supplied. The Council had not yet thought it necessary, or fitting, he might say, to exercise the powers entrusted to them by the Charter, and elect a president. But at the annual meeting which took place on the morrow it would be the duty of the members to fill up this vacancy. It could not be postponed; and he only alluded to the subject to indicate to them that the Council of the Society had been very hopeful that they should hereafter have the benefit of the presidency of a descendant of their illustrious Prince. They believed that at no distant time the Prince of Wales might be induced to occupy the chair which his late father filled with

such distinguished advantage and benefit to the Society. They, however, knew that his Royal Highness was at present a minor, and they could not therefore elect him at the present moment. The Council had therefore determined to recommend that a provisional arrangement should be made for the present, in the hope that at no distant period they might have the benefit of the Prince of Wales' presidency. He had but one subject more to present to them, and that was to convey to them the gratitude of the Society of Arts, for the manner in which foreign nations and the subjects of foreign countries had answered the appeal made to them, with regard to the Exhibition. Nothing, he thought, could show more conclusively the truth of the sentiments to which the right hon. chairman had given expression, viz., the benefits arising from the affectionate intercourse of nations with each other, than the fact that all foreign nations had entered into rivalry with them, just as if they were the subjects of one common country. Every thing had been done by the Juries in the best possible temper, and in the best possible spirit, and he believed there had been no desire except that justice should be done to the candidates from each country, and that he felt would most certainly be done. He had, therefore, to ask them to manifest their sense of the value of the presence of the many distinguished foreigners who were present at their board to-day, by drinking the health of their foreign guests. Many of them had come from great distances. They had prepared, at great cost to themselves, those beautiful specimens of the arts of their several countries which we had an opportunity of admiring under that roof. He asked them, therefore, to drink with the warmth that he was sure they felt for them, "The Health of our Foreign Guests," connecting with that toast the name of Monsieur Michel Chevalier.

The toast was drunk with enthusiastic and protracted cheering.

Monsieur MICHEL CHEVALIER returned thanks in the French language. He said: I beg to answer on behalf of all the foreigners here assembled, and am confident that I express their unanimous feeling when I say that we have all of us greatly gained by the intercourse with your nation as jurors or commissioners in this Great Exhibition. We came to this country satisfied that we represented a power, great, indeed, in the present day, that of human industry, which is the power of human intellect and human integrity, and therefore most worthy of honour. We have found that in the British Empire this power enjoys a very large share of veneration and respect, and that it exercises a great influence on the Government. We shall not fail to report this fact, and we hope that it will have a great effect on the march of affairs in our respective countries. Then we have another report to make with regard to the kind, amiable, and splendid reception we have met with. We feel most thankful for it. We shall all of us say to our countrymen, that the English men and English ladies are most distinguished for their manner of showing hospitality; that they must not be spoken of as an isolated or an exclusive nation; that they are the apostles of that creed that all men are brothers, of the same flesh and the same interests. But I must venture to warn you of one danger you are running into. I am afraid that from the report we make to our countrymen there will be a scheme carried on of an invasion from all your neighbours of the continent. Still for this invasion you need not make any warlike preparations; there are no guns nor rifles to be prepared, neither forts nor redoubts; you want only counters to transact business, shops and docks to contain merchandise, and numerous glasses to drink with us our wine at the same table with us. There is some thing else which we shall report, too, and which will be much appreciated all over Europe—all over the civilised world—that is what we have known of the Society of Arts, by which we are so well entertained this evening. The Society of Arts deserves high praise. It

has at least two merits, not small ones. First, it has understood what good taste is, and it spares no exertions to have it diffused amongst the industrial classes. Good taste is in their field of cultivation what the flowers are in a garden or in a park. The other merit of the Society of Arts is to have understood how great a boon for the general welfare are the benefits of instruction in all classes of society, and particularly amongst the working classes. Some forty years ago a French sovereign obtained for himself great eulogium, and made himself popular for an expression he used when inspecting a body of young men brought up to be soldiers. Each of them, said he has a marshal's bâton in his knapsack. The Society of Arts had the same feeling when it encouraged the education of the artisan. It has in that way told the young people in the manufacturing cities—Remember, that if you are studious—if you cultivate your minds and your intellect—if at the same time you are honest and good subjects of the Queen, you may in time be entitled to wealth, and even to all the distinctions that the nation may confer. Such a saying is good to be reported all over the civilised world; and it will be listened to when we say that such has become the practice of the illustrious, powerful, and honoured nation of England.

The CHAIRMAN again rose and said, they were assembled under the roof of a fabric of such vast proportions, and containing such a multitude and diversity of the most beautiful objects, that it seemed as if both the fabric and the collection within it might belong rather to fairy land than to common earth. But although it might be true that the magnificence of the collection and the rapidity with which it was brought together, and with which the fabric had been raised to enclose it, would, perhaps, do credit to a magician, they must bear in mind that all these results had not been achieved without the application of the homely instruments of painstaking and enlightened intelligence. These qualities were represented to them that evening in the persons of those whose health he was about to give, viz., "Her Majesty's Commissioners for the International Exhibition of 1862." He did not believe it was possible for any one, excepting those who had a near and practical view of the character and the working of the immense machinery by which such an Exhibition as this was collected and organised, to conceive what demands it made, not only upon the assiduity and intelligence of a multitude of subordinate operators, but especially upon the assiduity, the intelligence, the temper, the knowledge, and the skill of those who sat at the helm of affairs, and who supplied the motive power by which the whole of this great body was marshalled and set to work. Those were the persons to whom they owed a debt they could not do better than acknowledge by drinking most heartily to the health of the Royal Commissioners for 1862. In 1851 he had himself, as a Commissioner, had some small experience of the nature of those labours. It was enough to enable him to know that it was much more than the language of compliment he used when he said that nothing but the exercise of many great qualities, combined in an unusual degree, could have enabled any body of gentlemen to produce such an exhibition as they now saw within the walls of this building. In drinking their healths and thanking them for what they had done, let them hope that those most promising signs of the increasing multitudes which gathered from day to day to witness the Exhibition would leave upon record that these exhibitions not only achieved great good to the commercial and industrious classes, but were in every sense successful to such a degree as to encourage those who came after to follow the excellent example set by the Royal Commissioners of 1862. In connection with this toast, he begged to give them the name of Sir Wentworth Dilke.

The toast was drunk with cheering.

Sir WENTWORTH DILKE said no one more deeply re-

gretted than he did the unavoidable absence of Earl Granville, who would in more suitable terms have replied to the toast which the right hon. chairman had proposed, and would have thanked them in a manner more suitable to the occasion for the kindly way in which they had received the toast. This was not the occasion, and he was not the person who ought to be called upon to speak as to the various mistakes which no doubt the Commissioners had made in the conduct of this undertaking; but there was one point on which he did feel he was at liberty to say there had been no mistake, viz., that they had prevailed upon exhibitors at home and abroad to produce such a collection as had never before been witnessed in any part of the world; and, with his experience of 1851, he would say it was far surpassed by the present Exhibition. He would not detain them further than to state that this was the first day of great success, because he found the returns on the day on which the Society of Arts honoured the building with their presence showed that there were many thousands more visitors than on any previous occasion. He begged to return his best thanks for the honour they had done him personally, and the Royal Commissioners collectively.

Sir ROUNDELL PALMER (Solicitor-General) said he had been charged with the duty of proposing to them the toast of "The Colonies." They lived in times in which questions were asked about everybody and everything, and they were expected to answer them; and they must all have heard the question asked, "What is the use of our Colonies?" He confessed he had felt that there were many questions which were best answered by asking another question, and he would reply to that question by asking, "What is the use of our national greatness?" No doubt there were a great many answers to be given to that question; but no better answer he thought could be given than this, that the best and chiefest use of our national greatness was to promote the great mission of mankind—to help to subdue and replenish the earth—to help to spread truth, peace, and civilisation throughout the world. It was not in empire, it was not in conquest, it was not in arms so much as in those arts of commerce and peace which they were met there to celebrate, that true greatness consisted, and amongst the triumphs of civilisation, they in England could point to none more worthy of their pride, or more valuable, than the colonies which they had spread over the face of the earth. To plant the foot of man where man had never trodden—to plant our own race, our own arts, our own language, our own religion, to multiply on the earth, and peacefully to benefit ourselves and the world at large—this was, he thought, one of the greatest achievements of which they or any nation could boast, and whatever else might be achieved, there was nothing of which they could be more justly proud than of the colonies. They had also their reward in those colonies, for there were certainly no parts of the world which were better customers for our trade, or helped more to multiply our riches at home. And when they looked around them and saw the contributions the colonies had made to this and to the former Exhibition, they might well be proud of their progress. We at home were engaged in promoting the arts of manufactures and the arts of design, but the colonies were adding most usefully to the raw materials of the earth—these things without which the arts of manufacture and design would languish. In the Exhibition of 1851 our colonies did their part, and did it well; and there was a nobleman sitting at that table (Lord Harris) under whose auspices one of our smallest colonies—the island of Trinidad—at that time greatly distinguished itself by its contributions to that Exhibition. But in the present Exhibition they might be justly proud of the efforts these colonies had made, and of the promise they had given of the high spirit with which they were developing the characteristic features of Englishmen in every quarter of the world. They were

upon this occasion most glad to meet their friends from all countries of the world, and they were not least glad to meet those who represented the honour, the name, and the interests of England in Australia, in Canada, in the West Indies, and wherever the name of Englishman was known.

The toast having having been drunk with cheering,

General MACARTHUR, C.B., responded. He said he was but ill-prepared to occupy that position. It would be useless for him to dilate upon the great advantages of the colonies to this country. He would only therefore say that they were important branches of a great trading nation, and that they sought to harmonise their pursuits with all those objects which civilisation aimed at, and to which it hoped to attain. If he were disposed to speak of their material wealth, he would direct attention to the masses of gold which were now exhibited in that great building; but those represented only a small portion of the wealth of the colonies. It was the raw material—the “golden fleece,” that was of the most vital consequence to this country. Fifty years ago a single bale of merino wool, weighing less than fifty pounds, was all that was brought from Australia in one year, whereas at the present time, the importation into England of this material was more than sixty millions of pounds per annum. The industry which this importation created was of immense value to this country, and it was in this way that the colonies became of so much importance. He trusted that all the colonies would perform their parts in the great objects of their being, and he had no doubt that in a few years they would provide a large supply of cotton for the use of this country.

Vice-Chancellor Sir W. PAGE WOOD said he had confided to him a toast, the subject of which had already been alluded to by the Chairman (and no greater disadvantage could a man labour under than in saying that), who had noticed the efforts of the Society of Arts in promoting the education of the people by means of the Institutions in Union with it. The toast to which he had to call their attention was that of the “Institutions in Union,” and he would do so very briefly; but at the same time let him observe, that if the Society of Arts were to stand still for one single moment, its usefulness would be at an end, and therefore, as the Chairman had so ably pointed out, the great claim the Society had upon their attention was not so much in what it had done as in what it yet hoped to do. In the youth of England—he might say in the children of England—must be their hope. He and others were passing away from the scene, but they hoped that those who came after them would maintain that character which England had hitherto maintained as a great industrial and peace-loving nation. They had heard how the Society of Arts did what it could when there was little encouragement, and the advantage of these great corporate bodies was this:—a corporation at all times acted as the fly-wheel of a machine. At the time when there appeared to be a relaxation of force, the corporation accumulated it, and took care that none should be lost, and preserved it for the future. He trusted that would be the case with this Society by the means they had organised for the examination of youth. He would say in two words how that was done. This Society had about three hundred Institutions in connection with it, and they took this course:—Examination papers, prepared by men of the most able and distinguished character in various departments of art and science, were sent round to be answered by all those who, in these Institutions, have the means of voluntary examination; and those who returned the best answers were rewarded with certificates of merit and prizes; and he might tell them that the lamented Prince Consort, feeling anxious to encourage young men to take advantage of these examinations, instituted a prize of twenty-five guineas to the candidates who most distinguished themselves upon four annual occasions. He was also authorised by the Society to state to them that Her Majesty had intimated her intention to continue that prize. Now he might tell them

one anecdote of the working of this system, because he witnessed it, and was, therefore, competent evidence. In one of the great commercial towns, Halifax, he had the happiness of being present when the prizes were distributed to the successful candidates, in a school instituted there by a man who had distinguished himself, upon all occasions, for his devoted attention to the well-being of all in his employ—who had not only built almost a cathedral for his workmen, but had established a Working Men's College, where those prizes could be competed for. He saw the Chairman of the Council, Sir Thomas Phillips, distribute the prizes on one of those occasions, and he (Sir Page Wood) asked what was the result of the prizes, when he found the man who obtained the prize for chemistry was immediately engaged at a high salary by a dyeing firm in Scotland, and the young man who stood highest in book-keeping was retained at a high salary by a mercantile firm at Manchester. This was the way the system worked. Those facts were more valuable than any abstract statements. He trusted now, that in carrying into effect and still further developing this educational system, they would be able, like the Royal Academy of Arts and similar institutions to send pupils abroad for instruction. He trusted they would be able, at no distant time, to give some of the pupils those opportunities of advancing themselves in the knowledge and practice of the arts. They had the honour of the presence that evening of Mons. Arlès Dufour, of Lyons, and he had heard from that gentleman that which he took to be a great testimony, viz., that he had observed a marked improvement, and a marked development of increased taste and refinement, in our art productions since 1851. He had also told him that they had in Lyons institutions similar to those with which this Society had connected itself—institutions containing 500 members in the higher, and more in the lower branches of education, and, if they persisted in these efforts, they would do something to promote a desire in all nations for true glory. He did not envy the idea of glory which prevailed in France. He would ask all their friends, of every country, to consider more and more in what true glory consisted, and he thought they would find it was not in arms, it was not in the immolation of hecatombs of human victims in honour of some great commander, but in the advancement of all that tends to human happiness, or, what Lord Bacon calls, the “advancement of the glory of God and the welfare of man's estate.”

The toast having been duly honoured,

Mr. J. S. PAKINGTON rose and said he sincerely wished that the acknowledgment of this toast had fallen into worthier hands; but, upon an occasion like this, as upon all others, he remembered that England expected every man to do his duty, and his duty on this occasion was simply to do what he was told. He, therefore, rose with somewhat of reluctance to acknowledge, on behalf of the Institutions in union with the Society of Arts, the toast which had been so eloquently proposed. But, although he acknowledged his inability to do justice to that subject, he must say he yielded to no man in those feelings which were essential to the acknowledgment of such a toast, viz., a thorough appreciation of the benefits conferred, and a hearty gratitude for what they enjoyed in consequence of the fostering hand of the Society of Arts. They had already heard that evening, in more eloquent language than he could hope to utter, of that branch of the operations of the Society of Arts which extended to the question of adult education, and it was by affording help to these Mechanics' Institutes, and Provincial Unions, with one of which he had the honour to be connected, that the great question of national adult education was so greatly and practically advanced by the efforts of this Society. There were now, he was happy to say, no fewer than about three hundred Mechanics' Institutes in union with the Society of Arts. He trusted that number might greatly increase, and that the benefits of those Institutions, great as they were, might be extended, and that the Society of Arts, in its future career, might

look to as great and complete development of its efforts in the cause of adult education, as it now contemplated by its efforts in the promotion of education in Arts. Perhaps it would not be out of place if he were, in few words, to explain to those of their foreign friends who might not have in their own country similar institutions, what a Mechanics' Institution was, and for their benefit he would briefly state that a Mechanics' Institution was an association of artisans for obtaining, for a small subscription, the advantages which, to the rich, were afforded by their colleges, their clubs, or their reading-rooms. They had heard of their universities and schools, but perhaps they might not have heard of that most useful and most important intermediate institution for the benefit of the artisans of the country, called the Mechanics' Institution. It was, moreover, a centre round which the well disposed of that class might rally; it was a fortress for the good to resist the aggressions of evil, it was a most important link in the chain of a life-long education—education, he meant, in its greatest, in its widest and noblest sense—that education which, beginning with the earliest lessons taught by a mother to her infant child, continued stage by stage through the whole period of life, and found its end only in the grave, and its consummation only in eternity. He would conclude his humble acknowledgments for the toast they had done the Institutions in Union the honour to drink, by expressing a hope, in which he had no doubt they would all cordially join, viz.,—that the principle and advantage of union for promoting the useful and the good might be carried out, not only by Mechanics' Institutions, not only by Provincial Unions of educational bodies, not only by members of their Society and contributors and artificers of those wonders with which they were surrounded, but also for peace and mutual improvement by all the nations of the earth.

Mr. M. H. MARSH, M.P., said he had to propose the last toast in the list—the health of their excellent Chairman. He hoped it would be a bumper, as he was sure it ought to be. He wished the duty of proposing it had fallen into the hands of some one more eminent than himself, but he was sure that it could not have fallen into the hands of any one who could propose it with greater pleasure. It so happened that throughout a long life, his right honourable friend and himself had been connected by associations of one kind or another. He well recollected him when at college with himself, and with one who had recently passed away, a victim to his exertions for the welfare of his country. Some of their old colleagues yet survived, and among them Sir George C. Lewis and the Earl of Elgin, but while there were of that number some of great eminence, there were none more successful, none more honest, and none half so eloquent as his right hon. friend in the chair. Of his youth, it might be said in the language of the poet:—

“He spent no time in toys, or play, or wine,  
But in the thoughts of deep philosophy;  
Wit, eloquence, and poetry,  
Arts which I loved—all these, my friend, were thine.”

It seemed to him that it was peculiarly appropriate that the right hon. gentleman should be chairman on this occasion, for he was himself, in one sense, the soul of the Exhibition, being the representative of free-trade. Honestly and faithfully, from his earliest youth, he had been in love with that great principle. They had heard him describe the beauties of the Great Exhibition; they had heard him speak of the marvels of the French court, but what would be the use of the French court if the products there displayed were stopped by the Custom-house? Luckily, by the great exertions of the Chairman, there was little in that French court which did not enter into this country as free as air. He (Mr. Marsh) looked upon all this as but the beginning of a great end. They were already recognising the value of that great principle in France, and nothing could persuade him but that the solid genius and enterprise of the Scandinavian and Teutonic nations of

Northern and Central Europe must ultimately be brought to the same conclusion. In the Mediterranean a brighter day had dawned upon the people, and the principle recognised there might be extended by their industry and enterprise. As the right hon. gentleman in the chair had done so much to promote the extension of that principle, he was sure they would drink his health with the greatest pleasure.

The toast was drunk with the greatest enthusiasm.

The CHAIRMAN, in acknowledgment, said he could not conscientiously receive the flattering remarks of his friend who proposed his health, nor the thanks which had so cordially been offered him, without stating that in his opinion they had conferred upon him a much greater honour and favour than it was in his power, on the present occasion at least, to confer upon them. They had chosen him for that post upon a night when they made him by their election the spokesman of his country to the representatives of other nations there assembled, and that was an honour to which any man might well aspire, and which he felt gave dignity and importance to the functions he had been endeavouring to discharge as their spokesman. He trusted that he did not misrepresent them when he said to those friends who had gathered with such hearty goodwill from other and distant countries, that all that goodwill was most cordially reciprocated from the bottom of their hearts. When they spoke of peace—when they expressed the hope that these exhibitions, and these collections of men, as well as things from various nations, were likely to promote peace, they did not mean to turn their backs upon the traditions of their forefathers. To whatever nation they belonged, the gallant deeds of those who preceded them would ever have their sympathy and their admiration, and they would recollect with joy the fields in which they had contended for the honour and the safety of their country. But, compatibly with that sentiment, they yet hoped the time was coming and would come when the wounds of bleeding humanity might in some degree be staunchered; and with that noble consummation in view—a consummation which commended itself to the heart of every man—a consummation which belonged to the chiefest triumphs of the religion they professed, and with those sentiments in their hearts and mouths, they bade a welcome to their friends. He, as their organ, bade them welcome, and expressed the hope that, upon every occasion, whether here or in Paris, or in any other great centre of human industry and civilization, every occasion upon which these collections were again made and these assemblies of men were brought together, they might be found coming nearer and nearer in heart and feeling; less and less disposed to waste their resources in pursuing the idle and criminal schemes of ambition, and in desolating the world with blood.

## ANNUAL GENERAL MEETING.

WEDNESDAY, JUNE 25, 1862.

The Annual General Meeting, for receiving the Council's Report and the Treasurer's statement of the Receipts, Payments, and Expenditure during the past year, and also for the Election of Officers, was held on Wednesday, the 25th inst., at 4 p.m. Sir Thomas Phillips, Chairman of the Council, presided.

The SECRETARY having read the Bye-laws relating to the Annual General Meeting,

The CHAIRMAN said that, by the Bye-laws, he was directed to nominate two Gentlemen to act as Scrutineers of the Ballot for the election of

Officers. He would ask Mr. Robert Temple and Mr. Underdown to undertake that office.

Those gentlemen having consented to act, the Chairman declared the Ballot open. He then called upon the Secretary to read the Annual Report.

Mr. J. H. MURCHISON said he thought it would be better that the Report should be read before members proceeded to ballot.

The SECRETARY read the

### ANNUAL REPORT.

The Charter enjoins that the Council shall render to this meeting an account of their labours during the year. In compliance with this regulation, the Council now present the following Report:—

#### PRESIDENCY OF THE SOCIETY.

The Council feel it to be their first duty to express their deep sense of the great loss the Society has sustained, by the death of its lamented President the Prince Consort, which took place on the 14th of December last. It would ill become the Council on the present occasion to enter into a lengthened eulogium on the virtues and high qualities of the great and good Prince whom they have lost; the Society has already shown its high appreciation of his worth in the address of condolence which was presented to her Majesty in January last; and when the Lord Mayor convened a public meeting for the purpose of promoting a lasting national memorial of his Royal Highness, the Council thought it their duty to vote one thousand guineas to the fund proposed to be raised for that purpose. This act of the Council was unanimously confirmed at a general meeting of the members, specially convened for taking the matter into consideration. Subsequently, another special general meeting was convened, upon a requisition duly signed, in accordance with the bye-laws, when a resolution was passed, cordially approving of the vote of one thousand guineas to the national memorial to his Royal Highness, and also expressing the desire of the Society to have a special memorial of its own, leaving it in the hands of the Council to consider the most appropriate form for that memorial, and to bring the matter before the members at a fitting time. The Council have hitherto refrained from taking any steps for this purpose, feeling, as was expressed in their report to the members on the occasion of the special general meeting, that "at present it is better to support the erection of the national memorial than to engage in any separate memorial which might detract from this greater object." The Council have for the present rather turned their attention to aiding the Lord Mayor in collecting subscriptions for the National Memorial; and with this view they have promoted the formation of a large and influential Committee, which is

actively engaged in this work, and a considerable addition to the fund has been made by this means.

The lamented death of his Royal Highness obliged the Council to consider the course which they ought to adopt with reference to filling up the vacancy occasioned thereby. The course which was most consonant to the feelings of the Council, and, they doubt not, to the feelings of the members at large, was to refrain from the exercise of the power which the charter gives to the Council to fill up provisionally the office of President falling vacant in the interval between two annual meetings. It is now, however, their imperative duty to place on the balloting-list the name of some member of the Society who may be elected President for the ensuing year.

The thoughts of the Council were naturally turned to his Royal Highness the Prince of Wales, and they have reason to hope that at an early period the Society may enjoy the honour and advantage of having his Royal Highness as their President. Under these circumstances, the Council have thought it best to request the Senior Vice-President to allow himself to be placed in nomination to fill the vacant office for the present, and he has undertaken to serve if elected.

#### INTERNATIONAL EXHIBITION.

The successive reports for the last three years have detailed, for the information of the members the steps which have been taken by the Council for the establishment of the present International Exhibition; and in the last report it was stated that, on the petition of the Society, Her Majesty had been pleased to grant her Royal Charter, incorporating the Commissioners for the Exhibition, and establishing an advantageous connexion between this Society and International Exhibitions, the particulars of which were stated in the report, and that the Commissioners were actively engaged in the prosecution of that great undertaking, with a guarantee deed signed at that time by a large number of individuals, to the amount of £420,900, since increased to £452,100.

The Council have now the gratification of reporting that the Exhibition was formally opened on the 1st of May, by H.R.H. the Duke of Cambridge, K.G., his Grace the Archbishop of Canterbury, the Lord High Chancellor, the Earl of Derby, K.G., the Lord Chamberlain, Viscount Palmerston, K.G., G.C.B., and the Speaker of the House of Commons, acting under a special commission as the representatives of her Most Gracious Majesty the Queen; and that the value of International Exhibitions in promoting Arts, Manufactures, and Commerce, is being proved by the present Exhibition in the most conclusive manner.

#### JURY REPORTS ON THE EXHIBITION.

The Council have felt the importance of

having some permanent and authoritative record of the Exhibition, and finding that the Decisions of Her Majesty's Commissioners relating to the Juries provided only for the publication of their awards, but not for that of reports descriptive of the progress of industry since the Exhibition of 1851, and that the Commissioners do not contemplate the publication of any extended reports, the Council have undertaken this work with the co-operation of her Majesty's Commissioners and the Juries, and have placed the matter in charge of Dr. Lyon Playfair, the Special Commissioner of Juries. It is intended that the reports shall be published in royal octavo, to range with the one volume Jury Reports of 1851. The price, to Members of the Society of Arts, to Jurors, and Guarantors, is fixed at 10s.; to other persons, 15s. The reports will be published as early in August as possible.

#### MOSAIC WALL PICTURES.

A proposition having been made to raise sufficient funds to execute two large mosaic pictures, 23 feet high, as experiments for decorating the outside walls of the permanent picture galleries of the International Exhibition building in Cromwell-road, the Council of the Society, seeing that such experiments have a tendency to create a new branch of industry as well as a new style of decoration for architecture in this country, have thought it right to devote 100 guineas from the funds of the Society for the promotion of so desirable an object; and in a few days working designs, after drawings by W. C. Cope, R.A., and J. C. Hook, R.A., will be placed on the outside walls of the Exhibition in Cromwell-road, for the inspection and criticism of artists and the public.

#### ARTISTIC COPYRIGHT.

The Council have again renewed their efforts to obtain an amended law of Copyright for works of Fine Art. By the Bill of last year, it was proposed to repeal all existing statutes, and to enact one law of Copyright applicable to works of Fine Art generally. That Bill, however, proceeded no further than a first reading. Acting upon the advice of their friends in the legislature, the Council have this year limited the scope of their Bill to the creation of Copyright in paintings, drawings, and photographs, leaving for a future occasion the amendment of the law relating to Copyright in Engravings and Sculpture. The Council were fortunate enough to obtain the valuable assistance of Sir Roundell Palmer, the Solicitor-General, under whose advice the Bill was finally settled, and under whose charge it has passed the House of Commons. The Bill is now under the consideration of a Select Committee of the House of Lords, and there is every reason to hope that the claim of the artist

to due protection for his works will shortly be recognised by the law of this country as it already has been by the laws of most European nations.

#### THE SOCIETY'S PREMISES.

The members are aware that the Lease of the Society's House expires at Lady-day, 1867. The Council have for some time had under their consideration the propriety of renewing the lease of the premises in the Adelphi. It is well-known that this subject has occupied the attention of successive Councils of the Society, and various plans and localities for its future habitation have been under discussion. There are, however, many reasons in favour of the Society retaining its present situation, as being well adapted for carrying on its operations, and this totally irrespective of any interest which may accrue to the Society in the International Exhibition Buildings under the terms of the Charter constituting the Royal Commissioners for the Exhibition of 1862. The Council have therefore thought it right to accept a renewal of the lease of their premises in the Adelphi, and have agreed with the ground landlord for a lease of thirty years, to commence at the expiration of the existing lease, upon payment of a fine paid down and a rent for the future, which, under the circumstances of the improved value of the property, must be considered a satisfactory arrangement.

#### CONVERSAZIONI.

The Council thought it right that the Society should make provision this year for extending its hospitality to foreigners and strangers visiting London as Commissioners, Jurors, or otherwise, in connection with the International Exhibition, and they therefore determined to hold three Conversazioni, the first of which took place at the South Kensington Museum on the 3rd of May. The next will take place on the 9th July, and the third on the 8th of October, shortly previous to the close of the Exhibition.

#### MEDALS.

The Council have pleasure in announcing that they have awarded the following Medals for Papers read at the Evening Meetings:—

To Dr. F. Crace Calvert, F.R.S., for his paper "On Improvements and Progress in Dyeing and Calico-Printing since 1851." *The Society's Silver Medal.*

To E. C. C. Stanford, for his paper "On the Economic Uses of Seaweed." *The Society's Silver Medal.*

To James Morris, for his paper "On Mauritius: its Commercial and Social Bearings." *The Society's Silver Medal.*

#### EXHIBITION OF INVENTIONS.

The Council have not thought it advisable in the year of the International Exhibition, to have an Exhibition of Inventions.

#### UNION OF INSTITUTIONS.

For the particulars relating to this branch of

the Society's operations, the Council refer to the Secretary's report\* read to the Conference of the Representatives of Institutions on Monday, the 23rd inst., by which it appears that the examinations are gradually extending; a larger number of candidates having been examined in this than in any previous year.

#### FINANCE

The Council congratulate the Society on the continued prosperous condition of its finances. An increase has taken place in the number of its members beyond the annual average usually elected. At the first meeting of the Session, in November last, three hundred new members were proposed, and several hundreds have been added since. During the year the Council have received from the Executors of the late Dr. Cantor the one moiety of his residuary estate, bequeathed by the will of that gentleman to the Society, amounting to the sum of £5,042, the whole of which has been invested in India Promissory Notes, bearing interest at 5 per cent. A representation was made to the Council through the Danish Government, that Mrs. Cantor, a Danish lady, upwards of 80 years of age, the mother of Dr. Cantor, residing at Copenhagen, was by the death of her son deprived of the assistance he had been in the habit of affording her, that no provision for her had been made in his will, and that her sole means of support was a small annuity. The Council took the matter into consideration, and after consultation with the governing body of Wellington College, who under Dr. Cantor's will had received the other moiety of his residuary estate, it was agreed that an annuity of £50 a year should be jointly paid by the Society and Wellington College to her for life, and the Council have learnt with pleasure that this arrangement is entirely satisfactory to Mrs. Cantor. The Council have during the year invested £1,250 in Consols, and £362 12s. 2d. in Indian 5 per Cent. Promissory Notes, in addition to the foregoing sum of £5,042. The Council have also been able to pay out of their income the donation of £1,050, voted to the Prince Consort National Memorial Fund; and it will be seen that after the discharge of all the liabilities of the year, and making the investments above named, there remains a balance in favour of the Society of £563 15s. 7d. The particulars appear in the Balance Sheet published in last week's *Journal*.

Mr. MARSH NELSON drew attention to what he considered to be an incorrect mode of drawing up the Society's Financial Statement, and recommended the adoption of some alterations in future years. He also expressed it as his opinion that the cost of the *Journal* was too great, and that the matter contained in it was not sufficiently interesting.

Mr. R. GORDON wished to know how far the Council of the Society was responsible for the course that had been

taken by the National Memorial Committee recently formed at the Society's House, in sending circulars to the clergy and others in reference to the collection of subscriptions.

The CHAIRMAN explained that what had been done was not done by the Society, but by an independent committee, to whom, however, the Council had given every assistance, as stated in the Council's report. He did not concur in the objections taken by Mr. Gordon to the proceedings of this Committee.

Mr. J. H. MURCHISON, in reference to this subject, complained that the Council had called a meeting of persons not members of the Society, and made a report to them, which he considered an irregular proceeding. With regard to the *Journal*, he spoke of some alleged inaccuracies in the reports of speeches at the ordinary meetings, and thought it was generally not well conducted, and did not possess sufficient interest.

Mr. HENRY MAUDSLAY differed entirely from Mr. Murchison on this point. He was in the habit not only of reading the *Journal* himself, but placing it at the disposal of a large number of artisans and others, by whom he could assure them it was constantly read, and appeared to be highly appreciated.

Mr. FREDERICK LAWRENCE hoped that the Council would direct their immediate attention to the question of a special memorial of their late President for the Society, and that when the Prince of Wales occupied that chair, as they all hoped he would do, he would see that the Society had raised a worthy memorial of his illustrious father.

Mr. J. H. MURCHISON expressed his dissent from the views expressed in a paper which had been read at one of the ordinary meetings, tending to show the inutility of prizes as a means of promoting progress in invention and manufactures, and proceeded to read extracts from the Society's *Transactions*, for the purpose of showing the incorrectness of this view.

The CHAIRMAN then put to the meeting that the Council's report be received and adopted, which was carried.

The ballot having remained open one hour, and the scrutineers having reported, the Chairman declared that the following members had been elected to fill the several offices. The names in *italics* are those of members who have not, during the past year, filled the offices to which they have been elected:—

#### COUNCIL.

##### PRESIDENT.

*William Tookes, F.R.S.*

##### VICE-PRESIDENTS.

Lord Ashburton, F.R.S.

*Thomas Bazley, M.P.*

W. H. Bodkin.

Sir John P. Boileau, Bart.

The Duke of Buccleuch, K.G.

Harry Chester.

Henry Cole, C.B.

Sir C. Wentworth Dilke, Bt.

John Dillon.

The Earl Granville, K.G.,

F.R.S.

William Hawes.

Henry Thomas Hope.

*Lord Henry Lennox, M.P.*

*M. H. Marsh, M.P.*

*Right Hon. Sir John S.*

*Pakington, Bart., M.P.*

Sir Thomas Phillips, F.G.S.

The Marquis of Salisbury,

K.G.

*Thomas Twining.*

Lord Westbury.

Vice-Chancellor Sir William

Page Wood, F.R.S.

##### OTHER MEMBERS OF THE COUNCIL.

John Bell.

*Hon. and Rev. Samuel Best.*

J. Griffith Frith.

Peter Graham.

Edward Hamilton.

*Chandos Wren Hoskyns.*

J. C. Macdonald.

William Thomas Mackrell.

*Samuel Redgrave.*

*William Anderson Rose (Al-*

*derman).*

Thomas Sopwith, F.R.S.

*Thomas Winkworth.*

\* This will be published in next week's *Journal*.

## TREASURERS.

*John Alger.* | *George F. Wilson, F.R.S.*

## AUDITORS.

*G. Dixon Longstaff, M.D.* | *W. B. Simpson.*

## SECRETARY.

*Peter Le Neve Foster, M.A.*

## FINANCIAL OFFICER.

*Samuel Thomas Davenport.*

A vote of thanks was then passed to the Chairman, and also one to the scrutineers.

At the conclusion of the General Meeting, a Special Meeting was held, when the following candidates were balloted for, and duly elected members of the Society :—

Barber, John .....	Clapton, N.E.
Brown, John .....	Mayor of Sheffield, Shire-hall, Sharrow Head, Sheffield.
Cheale, Alexander .....	Uckfield, Sussex.
Churchill, Lord Alfred S., M.P. ....	16, Rutland-gate, S.W., and Athenæum Club, S.W.
Clowes, Francis .....	Norwich.
Douglas, Robert .....	23, New Bond-street, W.
Foster, John Alderson ...	Hull.
Hodgson, Arthur .....	Drayton-park, Middlesex, W.
Hohenbruck, Baron Arthur	3, Glo'ster - grove West, Brompton, S.W.
Horsley, Charles .....	20, Wharf-road, City-road, N.
Jacques, Richard M .....	9, Earl's-terrace, Kensington, W., and Easby Abbey, Richmond, Yorks.
Kennedy, John .....	Whitehaven.
Kent, G. Barton .....	11, Great Marlborough-st., W.
Lawton, John .....	Marle House, Micklehurst, near Stalybridge.
McConnel, James .....	Bent-hill, Prestwich, near Manchester.
Morfit, Campbell, M.D....	49, Weymouth-street, Portland-place, W.
Perkin, Thos. Dix .....	Sudbury, Middlesex, N.W.
Rixon, Alfred H. ....	7, Pall-mall East, S.W.
Robinson, Francis .....	48, Conduit-street, Hanover-square, W.
Scott, James .....	St. John's Grammar School, Hamilton, N.B.
Scovell, George .....	34, Grosvenor-place, S.W.
Strachan, James .....	12, Royal-crescent, Notting-hill, W.
Sutton, Edwin .....	204, Regent-street, W.

## ROYAL AGRICULTURAL SOCIETY'S SHOW, AT BATTERSEA.

The attention of members may be directed to the most extensive and complete collection of Agricultural implements and stock which has ever been assembled together, probably in the world. The vigour and vitality which it manifests is a conclusive proof of how much such a collection serves the best interests, both of producer and consumer. It also proves how gradual must be the steps by which it has become possible to make such a collection. It may fairly be reasoned, that if a show can be made International, and of this magnitude, for live agricultural stock and agricultural implements, it only demands the same kind of perseverance which the Royal Agricultural Society has manifested during many years, to create Annual International Exhibitions of other branches of human industry, which would become as useful and suc-

cessful in each respective industry as the present great show is for agriculture.

The show remains open until Wednesday, 2nd of July inclusive, and Battersea - park has proved itself to be an excellent site for the purpose.

## EXAMINATIONS, 1862.

The following additions and alterations should be made in the List of Certificates awarded to candidates published in last week's *Journal* :—

- 981—Ardill, Fanny, aged 17, Ladies' Educational Institution, Leeds. Pupil Teacher—Arithmetic (3rd)  
 982—Horne, Carolyn, aged 18, Ladies' Educational Institution, Leeds—Arithmetic (3rd)  
 980—For "Grant, Apulina," read "Gaunt, Apulina."  
 132—Healey, Thomas—after Mensuration, for "(3rd)" read "(2nd)"  
 271—After "Jamieson, William Stevens," omit "Arithmetic (3rd)"  
 104—After "Parker, Samuel Isaac," omit "Geometrical Drawing (3rd)," he not having come up for examination.  
 971—Payne, James, jun.—after Algebra and English History, for "(2nd)" read "(3rd)"; and after Geometrical Drawing and Logic, for "(3rd)" read "(2nd)"  
 975—Sutcliffe, Samuel—after Book-keeping, for "(3rd)" read "(2nd)"  
 317—Tiffany, John Barnes—after Arithmetic, Algebra, and Geometry, read "(2nd)" instead of "(3rd)"

## PHYSICAL TRAINING OF CHILDREN.

On Saturday evening a meeting of the London Association of School-teachers was held at the Radnor-street Schools, City-road, to hear a lecture given by Dr. M. Roth upon scientific physical education. EDWIN CHADWICK, Esq., C.B., in the chair.

Dr. ROTH, after expounding some of the elementary principles of physiology, which he illustrated in a manner to call forth much applause, by large anatomical drawings and models in papier-maché, proceeded to declare that these principles were violated in a common school teaching with disastrous results, in lowering the power and spreading disease amongst the population. Such mental acquisitions as were imparted were undoubtedly imparted at the expense of much physical deterioration. Seated on such inconvenient benches as were before him, crowded together very frequently so as to confine the arms and the whole body; kept sitting, often with weak spinal columns without any support; kept sitting there for hours in painful constraint, or kept bent over lessons in most injurious positions; kept for periods of time which were now proved to be beyond the infantile capacity of profitable attention, and that, too, in overcrowded and ill-ventilated rooms, was it surprising that schools were so frequently the sources of epidemic disease? As an example of improvement required in details, there was in the International Exhibition an improved child's school seat, which gave the support of a desk for writing, and that desk turned over gave the support which was often needed for long sitting. As founded on the principles of our nature, he was an advocate for the principle of the half school time system, or of alternate industrial and physical exercise with mental exercises properly graduated and systematised. He then described a number of these elementary exercises. These would serve to prepare the way for the military drill, which, as taught in this country, was very defective in itself, and greatly required the light of physiological science for its amendment. The commencement of improvement should be by the application of physiological science at the training colleges.

The CHAIRMAN said it gave him great pleasure to ob-

serve that the schoolmasters invited a lecture on this subject, which was highly important to many of themselves as well as to their pupils. He anticipated that when statistical returns as to the causes of death belonging to occupations were obtained, it would be found that some ten years' loss of life was occasioned to the class of elementary school teachers by preventible conditions of excessive sedentary occupation in impure air. Where physical exercises, combined with reduced periods of sedentary constraint, with good ventilation and with personal cleanliness, had been introduced, the health of children had been advanced to an extent which to many would seem marvellous, and large classes of diseases deemed inevitable as "children's diseases" had been abolished. At Paris there was a large hospital for children. Mere medical treatment alone was found insufficient for their restoration, and a gymnasium had been added to it, and special exercises provided, with great success. They might see a beautiful model of this school gymnasium in the upper part of the French court in the International Exhibition. In it were models of children in exercise, with specimens of the apparatus in use, which were deserving of their attention. He had stated, as a deduction from the evidence of employers of labour, that four drilled youths or four drilled men were as efficient as five undrilled men for ordinary labour in civil life; that the general introduction of the military drill in schools would add at the least one-fifth to the efficiency of the labour of the general population. But the French professor of the gymnasium to which he had directed attention had declared to him that by systematic gymnastics, in addition to the ordinary drill, three persons were made equal in strength and efficiency in the direction of their labour in civil life to five of the ordinary population. School teachers, where the military drill had been introduced, and exercises interspersed with the lessons, bore testimony to the fact that the mental vigour of the school had been improved by them. One unexpected minor economy had been obtained, which would compensate in itself for teaching the drill. A schoolmaster who had been taught the drill about a year said he found that it had already saved him a pair of shoes, and he had no doubt it would save him a pair of shoes a year for the rest of his life, as well as each of his pupils, by the more even tread and wear of the shoe. The drill sergeants pointed out also the saving of the trousers from less splashing of dirt and kicking, as well as the saving of the shoes, obtained by training. They pointed out also the attainment of greater distances, with the same amount of fatigue in walking, by their pupils in after life. These economies were undoubted, and were not to be despised for civil life. Lord Elexho had given notice of his intention to bring under the notice of Parliament the large public economies obtainable by the general introduction of the military drill as part of systematic physical training in elementary schools.

A long discussion amongst the school teachers followed, in which several of them recited their own experience of the beneficial effects of gymnastic exercises. But it was complained, as a matter which required redress, that the last revised code was so framed as to exclude physical training, and to frustrate trials of the half-time system. It was also complained that they had no pecuniary means of obtaining the necessary appliances and accommodation.

Mr. LANGTON, of the Borough-road school, stated that they had the military drill in their school, which was so necessary for the movement of the classes that he did not know how he could get on without them. He did not see his way to the adoption of the half-time plan advocated by the chairman, of three-hour lessons and three hours' gymnastic exercises. He did not think boys would like to lose their games.

The CHAIRMAN said he did not contend for a fixed provision for all cases; he was for the introduction of physical training, and for a better adjustment of the mental effort to the mental capacities, which would vary with ages and conditions. He should not like that boys should lose any

of their games, and should like that they should have in towns more and better than those they now had.

Thanks were voted to Dr. Roth and to the chairman, and the meeting separated, it being understood that the subject was to be further prosecuted in connexion with the question of public education.

#### SHEFFIELD SCHOOL OF PRACTICAL SCIENCE AND METALLURGY.

The following is a statement of the arrangements which have been made by the Executive Committee, and of the nature of the scheme of education which it is intended to adopt in this school:—

The idea of establishing a school for the instruction in practical science of young men who are destined to become engineers, civil, mechanical, or mining, or managers of manufacturing works of any kind, was put forward by the Rev. G. B. Atkinson, Principal of the Collegiate Schools, who urged the great want of such a school, and gave a plan by which one might easily and inexpensively be established. The main features of this plan were the following:—The use of some portions of the buildings of the Collegiate School was offered by Mr. Atkinson. These buildings are well suited for the purpose, and include a most excellent laboratory. A professional engineer was to be engaged to take charge of the more technical portion of the instruction; and Mr. Atkinson considered that with this addition the ordinary staff of the Collegiate School would be amply sufficient until the School of Science had grown to large dimensions. Mineralogical and Geological collections were to be set on foot, and an industrial museum was to be gradually formed. This School of Science, however, although under the same roof with the present Collegiate School, was, as a school, to be entirely distinct. The conditions of admission were to be such as would render it open to all classes and denominations.

A meeting was called by the Mayor, at which this scheme was considered; its general principles were approved, and a Committee was formed, who were charged with the duty of arranging details and taking the necessary steps to carry it into effect. The following are the names of the Committee:—Executive.—The Mayor (J. Brown Esq.), The Master Cutler (G. Wilkinson, Esq.), William Baker, Esq., F.C.S., Associate of the Government School of Mines, C. H. B. Hambly, Esq., F.C.S., F.G.S., Robert Jackson, Esq., Rev. J. B. Paton, M.A., Edward Sanderson, Esq., F.R.S. General.—The gentlemen constituting the Executive Committee and the following:—Charles Atkinson, Esq., Samuel Butcher, Esq., Charles Cammell, Esq., Thomas Dunn, Esq., R. J. Gainsford, Esq., Thomas Jessop, Esq., W. A. Matthews, Esq., Rev. Canon Sale, D.D., Graham Stuart, Esq., F.C.S., Henry Vickers, Esq., Thomas Vickers Esq., Bernard Wake, Esq.

Meetings of the Committee have been held and the whole subject has been thoroughly considered; and the result has been that, as a temporary expedient for giving the school a start, the scheme of Mr. Atkinson has been unanimously adopted. It is hoped that in a few years it will have grown to a size which will render necessary an independent building on a large scale.

The following is a brief outline of the plan of instruction. The complete course extends over three years, and will fully occupy the whole time of a student during this period. It comprises the following subjects:—Mathematics, Natural Philosophy, Chemistry, Mineralogy, Geology, Mining, Metallurgy, Civil Engineering, Mechanical Drawing, Technology, &c. Students who have attended the complete course, and passed the final examination in the first class, will be entitled to a certificate of proficiency, with the title of Associate of the Sheffield School of Practical Science and Metallurgy. They will be entitled for life to have access to the museum, and to all the courses of lectures. Students, however, who cannot de-

vote their whole time to the school, may attend one or more of the courses of lectures. Upon passing, with credit, an examination in any subject, they will be entitled to a certificate of proficiency in that subject.

Courses of evening lectures are to be given to working men. The situation of the Collegiate School not being favourable for these lectures, an appropriate building has been sought in a central situation. Two offers of lecture rooms have been made; one of rooms in the Milk-street School; the other of a room which is about to be built for purposes of the kind in Gower-street. The Committee have decided to accept both these offers. The educational staff necessary to carry out the proposed scheme will consist of the Rev. G. B. Atkinson, Dr. James Allan, a professional engineer, and a teacher of mechanical drawing. The school is expected to be ultimately self-supporting. This, however, cannot of course be the case until it has been working for some time; and it will therefore be necessary to raise funds to cover the expenses until it is so. It is proposed in the first instance to raise funds sufficient to carry on the school for three years. It is calculated that the amount required will be, for the first year £500, and for each succeeding year, £400. Of this about £300 per annum will be required for salaries. It is proposed to raise this fund by subscription; it will be of the nature of a guarantee fund, and will be subject to reduction by a proportion of the fees paid by students. This proportion of the fees will form a certain per centage on the expenses; and a reduction at that rate will be made on the sum guaranteed by each person.

Subscribers (not being students) of £1 and upwards will be admitted, without charge, to any of the lectures. The management of the funds will be in the hands of the Executive Committee, who will publish an annual balance sheet. A sub-committee, consisting of the following gentlemen, has been appointed to undertake the collection of the requisite funds:—W. Baker, Esq., F.C.S., C. H. B. Hambly, Esq., F.C.S., Rev. J. B. Paton, M.A., H. C. Sorby, Esq., F.R.S.

The following are the fees chargeable to students:—**Matriculated Students**, passing through the regular course, 20 guineas per annum. Composition fee, for the whole course of three years, payable at entry, 45 guineas. These fees are exclusive of the fees for laboratory practice.

The fees for the separate courses of lectures for occasional students are:—**Mathematics**, seven lectures a week, 5 guineas each term. **Chemistry**, course of 100 lectures, 5 guineas. **Civil Engineering**, 4 guineas each term. **Principles of Mechanism**, 1 guinea each term. **Mineralogy**, 1 guinea each term. **Geology**, 1 guinea each term. **Mechanical Drawing**, 1½ guinea each term. **Laboratory Practice, Chemistry**, one whole day each week, 4 guineas each term; two whole days each week, 7 guineas each term; three whole days, 12 guineas each term. **Laboratory Practice, Metallurgy**, one whole day each week, 4½ guineas each term; two whole days each week, 8 guineas each term; three whole days each week, 14 guineas each term.

The charge for admission to the Lectures to working men will be 2d. each lecture.

states that I "assert" that Sir William Armstrong "found out" the same thing with regard to ordnance as himself; and this conveys, I think, the idea that I affirm as a fact that Sir W. Armstrong truly invented the same thing by excogitation of the brain, whereas I merely, in passing, stated that he had "found out," meaning that he had, by some means or other, arrived at the same goal. I would not "affirm" of anyone that he had invented anything, as I consider this is testimony that must come from the inventor alone.

Mr. Reveley's statements about my errors, in supposing the Government had forgotten him, and about his capacity for bearing its "badgering," are, after all, little to the purpose of the discussion; but his remarks as to his not being inclined to take a "patent-right lottery-ticket," and as to his not having fully developed his invention by making the required piece of ordnance, and to his method of (as he supposes) acquiring a *status* by communicating his invention to the Ordnance Committee, only tend to confirm my view of his case; for could he or any one else, seeing that the laws and institutions of the community to which he belongs prescribe the "patent-right lottery-ticket," as he terms it, as the method by which he is to be recorded as having a vested right in an invention, suppose in fairness, that when it does not suit him to avail himself thereof, he ought still to obtain the benefits which would be conferred thereby—that is, claim a prize in the lottery without taking out a lottery-ticket. Further, notwithstanding Mr. Reveley's assertion that he duly obtained a *status*, still it must be apparent to all that he did not obtain that *status* which induced him to go on, or which would have enabled him to induce others to go on, and develop his invention by making a full-sized piece of ordnance. It will be also apparent that he obtained no legal *status* so as to gain a property in his invention; otherwise, he might now have enforced his claim against Sir W. Armstrong, by legal process.

I have mixed with inventors, and been conversant with men of business for nearly 25 years to no purpose, if my opinion is fallacious that men will never be induced to exercise ingenuity and expend time and money in inventing, perfecting, and practically developing improvements on the chance of succeeding in the unticketed lottery of the uncertain action of governmental appreciation or public gratitude (this last being generally reserved till after death). Even if some inventor, brimful of patriotism or enthusiasm, shall occasionally do all this for the offspring of his own brain, I feel confident he will never get the aid of the capitalist, when he is unable to offer a share in a legalised property such as may give promise of marketable value.

And to return to Mr. Reveley's first communication in the *Journal* of May 9, page 416, I conceive that, in the case of Watt's great invention instanced therein, Mr. Boulton, the partner of Watt, would not have expended his large capital had he been sure that no exclusive property could have been held in Watt's invention.

I am ready to admit that all that Mr. Reveley says against patent law, as far as it refers to the present practice, is without doubt too true, and that in consequence of its defective state inventors do very often fail to obtain the benefits they have a right to expect, but this, I maintain, is no fault of the principles of the system of according patent-rights, but is the direct consequence of defective details. I do most strenuously affirm that the system of erecting vested rights in inventions, so as to ensure the full and systematic recording of inventions, and promote the practical development thereof in the commercial sense, provided the vested right be temporary and not perpetual, is equitable and sound public policy, as much as in the cases of the possession of landed property and property in goods and chattels.

The question is, indeed, one of the merest common-sense and common justice. Is it just and expedient that I should be able to obtain vested rights in any and all products of my labour, whether mental or corporeal, when-

## Home Correspondence.

### THE PATENT LAW.

Sir,—Mr. Reveley states that my communication, inserted in the *Journal* of May 16th, p. 444, "confirms and corroborates every position assumed by him in regard to the Law of Patent Right." Judgment being thus unhesitatingly pronounced, I have nothing left to do but to carry on my appeal to public opinion through the *Society's Journal*, in doing which I will now notice his last statements of the errors he says I have fallen into. Thus, he

ever or wherever it is possible to make the results of such labour the subject-matter of such rights? And this is allowed to be good if I compose a new literary or dramatic work, or piece of music; if I establish a good-will in trade, or have an acknowledged trade-mark, or make a new ornamental design, as well as if I do a piece of carpentry-work, or erect a building—for hereby industry and improvement will certainly be promoted to an extent that can never be effected without these rights, except, perhaps, in the days of the millenium, when property rights, laws, and constables will be wholly superseded.

I am, &c., F. W. CAMPIN.

London, June 19, 1862.

### THE GRAVITY ESCAPEMENT.

SIR,—Some few years since you published the description of Mr. Denison's Gravity Escapement,\* perhaps the following observations on the same subject may not be unacceptable.

The gravity escapement appears to have been a peculiar object of interest to horologists since the days of Cummins, and it is singular that the improvements which have taken place in its construction have been invented by amateurs. Mr. Bloxam was the first to make any great step in advance. Mr. Denison advantageously changed the form and arrangement of Mr. Bloxam's, and introduced the valuable addition of a fly.

All gravity escapements have hitherto been constructed on the principle that the pin lifts the same pallet on which the tooth drops. In the following escapement, which I call the Pin-wheel Gravity Escapement, the opposite pallet is lifted to that on which the tooth falls, consequently it is impossible to trip if ten or twenty times the weight be applied.

Fig. 1.

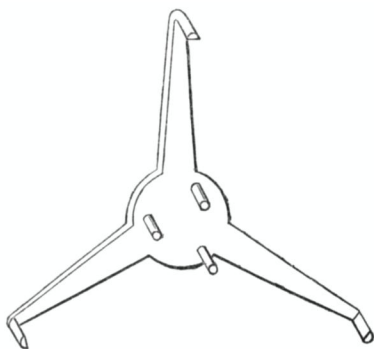
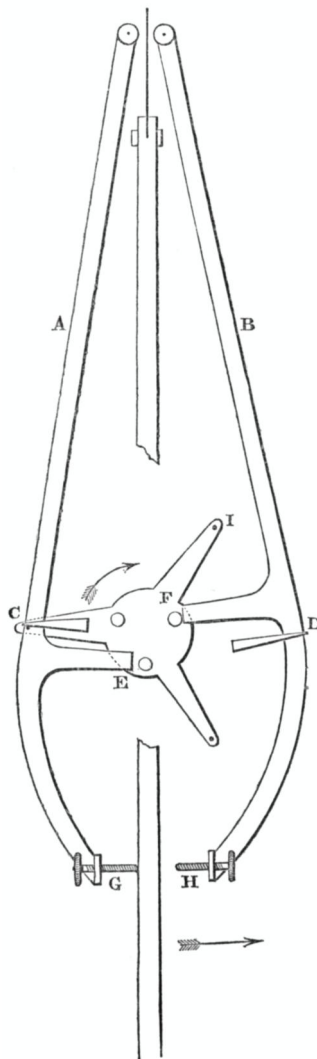


Figure 1 is the three-legged wheel, but instead of having a tooth at the end of each leg, as in Mr. Denison's, there is a semi-cylindrical pin, with the flat side turned towards the centre. Now in Mr. Denison's, the pin raises the pallet, and the long tooth immediately drops on the stop of the same pallet, whereas, in my escapement, the inner pin lifts the opposite pallet to that on which the pin of the leg falls.

In Figure 2 the pendulum is advancing in the direction of the arrow, propelled by the weight of the pallet A, in contact at G. The pallet B is held up by one of the inner pins at F, and one of the semi-cylindrical pins at the end of the leg is pressing on the stop at C, behind the dotted leg as here shown. When the pendulum has travelled sufficiently far the leg pin escapes outside the stop C (not inside, as in Mr. Denison's), the wheel then turns in the direction of the arrow, the pin at E raises the pallet A, at the same instant the pin at F releases the pallet B, which is now in contact with the pendulum at H, and gives the impulse by gravity during the pendulum's

return, while the leg pin at I is resting on the stop D. The pallet A is stopped by a banking pin at the moment the pendulum takes up the pallet B. The same action then takes place on the opposite side. The acting sur-

Fig. 2.



faces at C and D are struck in a circle from the pivots by which the pallets are suspended, and if intended to go without oil, should be jewelled. It can be made with six legs, but I have put three for simplicity of explanation. The inner pins should be set at an angle of 30° in advance of the outer pins. It should be noticed, as a peculiar feature of this escapement, that the pendulum does not unlock the wheel, but that the pallet, by its own gravity, allows it to escape. The impulse is divided equally during the ascent of the pendulum after zero, and its descent before it—a principle which Professor Airy has shown to be essential to good time-keeping, and as the pin slides on the dead face of the stop, as long, or rather longer, than in the dead-beat escapement, it indeed appears to me to combine the principle of Grahame's with that of the gravity escapement.

I am, &c.,

R. WEBSTER.

\* See *Journal*, Vol. ii., pp. 133 and 749.

## A NEW PROJECTILE FORCE.

SIR,—I perceive at line 20, page 460, 2nd col. I should have corrected the MSS. The following should have been the words used, "omits the cost of acid, the item of zinc being that upon, &c."

If only one acid were to be used, as in a single-cell battery, the cost for each cell would be little, but the intensity is so small in these batteries, that a great many must be employed to decompose water, and if the porous cells were used, great expense would be incurred in the nitric acid or similar agent, unless the single cell battery, which I believe Professor Callard invented some time ago, could be used advantageously, of which I have had no opportunity of judging practically, but I would suggest experiments in that direction.

Apologising for again encroaching on your space,  
I am, &c.,

JOHN S. BLOCKEY.

## Proceedings of Institutions.

LONDON MECHANICS' INSTITUTION.—In consequence of the recent death of one of the trustees, the Institution is threatened with proceedings in Chancery, to enforce the sale of the property (involving the destruction of the Institution), for the purpose of liquidating the mortgage debt of £1,500, which was recently incurred for the purchase of the premises. The efforts of the friends of the Institution and of education are earnestly solicited by the Committee in order to raise the sum, and thus relieve the trustees from all liability and place the Institution upon a safer basis. Donations will be received by the bankers, Messrs. Smith, Payne and Smiths; Messrs. Hanbury and Lloyd; Messrs. Ransom and Co.; at the Birkbeck Bank for Deposits; and at the London Mechanics' Institution.

## MEETINGS FOR THE ENSUING WEEK.

TUES. ...Ethnological, 8. 1. Professor Huxley, "On the Human Remains found in the Shell Mounds of the Malay Peninsula." 2. Mr. Mackie, "On some Human Remains from the Valley of the Trent and Weardale." 3. Mr. Bailey, "On the Vedda of Ceylon." 4. Mr. Clarke, "On some Drawings from Sierra Leone." 5. Dr. Knox, "An Inquiry into the Influence of Climate, &c., on Man."

WED. ...Geologists' Assoc., 7.

FRI. ....Archæological Inst., 4.

SAT. ....Asiatic, 3.

## PATENT LAW AMENDMENT ACT.

## APPLICATIONS FOR PATENTS AND PROTECTION ALLOWED.

[From Gazette, June 13th, 1862.]

Dated 30th May, 1862.

1636. J. Ives, Bow—Improved machinery for washing and wringing clothes or fabrics.  
1630. C. O. Staunton, Paulton-square, Chelsea—Imp. in apparatus for signalling and indicating the position of shots on targets in rifle practice, and for preventing accidents to the markers.  
1632. R. C. Steed, Aylesford-street, St. George's-square, Pimlico—Improved apparatus for signalling on railways.  
1634. W. Eddington, Jun., Chelmsford—Imp. in apparatus for draining and tilling land.

Dated 31st May, 1862.

1688. J. H. Holland, Lorrimer-road, Surrey—An imp. in traction engines.  
1644. D. A. Lamb, Berwick-upon-Tweed—Imp. in railway buffers or apparatus to relieve concussion on railways.  
1652. W. K. Sullivan, Upper Leeson-street, Dublin—Imp. in the preservation of stone, plaster, cement, and other like matters, the invention being likewise applicable to the manufacture of artificial stone, and to the fixation and production of colours on and in the body of stone, plaster, or cement.

Dated June 2nd, 1862.

1654. B. Templar, Manchester—Imp. in apparatus for registering and indicating billiards and other games.  
1656. J. Rice and W. J. Gradwell, Manchester—Certain imp. in machinery for spinning, doubling, and winding cotton and other fibrous substances.

[From Gazette, June 20th, 1862.]

Dated 22nd March, 1862.

1807. M. Henry, 84, Fleet-street—Imp. in kilns, ovens, and furnaces. (A com.)

Dated 11th April, 1862.

1051. J. H. Johnson, 47, Lincoln's-inn-fields—Imp. in fire arms. (A com.)

Dated 21st April, 1862.

1151. A. P. Tronchon, 4, South street, Finsbury—Imp. in the construction of houses, palisades, and other similar constructions.

Dated 24th April, 1862.

1205. T. W. Ashby, Stamford—Improved apparatus for obtaining motive power from the wind. (A com.)

Dated 30th April, 1862.

1282. A. H. Fielden, 35, Castle-street, Holborn—Imp. in show jars, lamps, signals, and lighthouses, and other methods of illumination.

Dated 9th May, 1862.

1389. L. D'Aubreville, 60, Boulevard de Strasbourg, Paris—Imp. in metallic cross sleepers for railways. (A com.)

Dated 13th May, 1862.

1434. J. D. Gavillet and J. P. F. Gandon, 26, Rue Leonie, Montmartre, Paris—Imp. in paddle wheels applied either for propelling steam boats, or as prime movers.

1449. M. Henry, 84, Fleet-street—An imp. in, or addition to, gloves. (A com.)

Dated 17th May, 1862.

1497. R. W. Siever, Guilford-street, Russell-square—An imp. in rams for naval warfare.

Dated 22nd May, 1862.

1543. G. Crawford, Beaumont-street, Portland-place—Imp. in musical instruments.

1545. S. Turnbull and F. Turnbull, Holywell Mount, Shoreditch—Imp. in the manufacture of floor cloths and like coverings.

1549. G. Barlow, Birmingham—A new or improved method of laying submarine telegraphic cables. (A com.)

1551. W. Roberts and T. Greenacre, Millwall—Imp. in cocks or valves for steam or other fluids.

Dated 23rd May, 1862.

1554. P. McGregor, Manchester—Certain imp. in machinery for spinning and doubling cotton and other fibrous substances.

1555. R. Blackledge, Accrington, Lancashire—Imp. in the preparation of materials for sizing, dressing, or finishing warps, yarns, textile fabrics, or paper, and also for thickening colours.

1557. W. E. Wiley, Graham-street, Birmingham—Imp. in the manufacture of certain kinds of penholders, which improvements may also be applied to pencil cases and holders for crayons, and other solid writing or marking materials.

1561. E. Maw, Leamington—Imp. in constructing ships, vessels, forts, and batteries.

1563. W. Clark, 53, Chancery-lane—A new manufacture of socks and stockings. (A com.)

Dated 26th May, 1862.

1565. J. Harrison and R. Parkinson, Blackburn—Imp. in the manufacture of rollers for preparing, spinning, doubling, sizing, winding, warping, and weaving.

1567. C. De Bergue, Manchester—Imp. in iron framing applicable to supporting coverings or surfaces intended to resist blows or pressure.

1568. C. Brakell, W. Hoehl, and W. Gunther, Oldham—Imp. in steam and other motive engines.

1569. M. Walls and J. Crompton, Bolton—Imp. in railway signals.

1578. W. Brierley and G. F. Smeeton, Halifax—Imp. in apparatus connected with targets.

1572. W. Worby, Ipswich—Imp. in reaping machines.

1574. J. A. C. N. Delpech, Castres, France—Imp. in pumps.

1575. R. M. Letchford, Three Colts-lane, Bethnal-green—An imp. in the manufacture of matches.

1577. J. E. Holmes, South Parade, Chelsea—Imp. in machinery for digging or cultivating land.

1579. J. E. Holmes, South Parade, Chelsea—Imp. in printing machinery. (A com.)

Dated 27th May, 1862.

1581. E. Tuck, 79A, Leadenhall-street—Certain imp. in electrical manipulation, applicable to submarine telegraphs.

1583. W. E. Gedge, 11, Wellington-street, Strand—Imp. in the manufacture of wire ropes or cables. (A com.)

1585. J. Ireland, Manchester—Imp. in forming moulds for card cylinders.

1587. W. Clark, 53, Chancery-lane—Imp. in brakes for railroad carriages. (A com.)

1588. F. Tolhausen, 17, Faubourg Montmartre, Paris—A new or improved method of applying various mineral and organic substances to wire-gauze, metallic and asbestos tissues, for rendering said tissues available for ornamental and useful purposes. (A com.)

1589. G. H. Sanborn, 100, Fleet street—Imp. in revolving breech-loading fire-arms. (A com.)

1590. J. Hay, Troon, Ayr, N.B.—Imp. in war ships, also applicable in part to floating and land batteries or forts, and in part to mercantile and other vessels.

1591. J. Duffus, Cullen, Banff, N.B.—Improved apparatus for measuring piece goods or webs.

1593. D. T. Moss, 16, Camden-terrace, Leeds—Imp. in fastening horse shoes.

*Dated 28th May, 1862.*

1597. J. H. Kidd, Manchester—An improved manufacture of compositions applicable for waterproofing fabrics, for coating and protecting various articles, and for various other purposes.
1599. J. Rogerson, Newcastle-upon-Tyne—An iron floating dock to be used for the purpose of building and repairing ships, steamers, barges, and floating vessels of all descriptions.
1601. J. F. Harrison, Cambridge-square, Hyde-park—Imp. in preserving the bottoms of ships from the attacks of barnacles and other incrustations.
1603. T. Turner, Redditch, Worcestershire—Imp. in machinery for scouring and polishing knitting and other pins and needles.
1605. J. Hirst, jun., Dobcross, Saddleworth, and E. O. Taylor, Marsden, near Huddersfield—Imp. in means or apparatus for evaporating water and other fluids, and in economising the use of steam.
1607. J. H. Johnson, 47, Lincoln's-inn-fields—Imp. in the manufacture of tinned lead pipes, and in the apparatus employed therein. (A com.)
1608. W. Blackmore, Forney, and H. Lamb, Ennis, Ireland—Imp. in burning limestone, and generating steam.
1609. J. A. Ransome, Ipswich—Imp. in the manufacture of and in fastening railway chairs with wood trenails.

*Dated 30th May, 1862.*

1628. I. Leon, 4, South-street, Finsbury—An improved curb or rein for enabling riders or drivers to stop restive or runaway horses.

*Dated 31st May, 1862.*

1610. W. T. Smallwood, Narrow-street, Limchouse, and W. Wright, Dean's-buildings, West India Dock-road—Imp. in water-closets.
1642. T. V. de Veye, 15, Passage des Petites Ecuries, Paris—A coating intended to protect iron from rust, and to preserve wood, cloth, paper, and pasteboard used for packing or roofing.
1650. L. Chaubart, Moissac, France—An improved mode of, and apparatus for, raising the level of water in rivers, canals, and other watercourses.

*Dated 2nd June, 1862.*

1660. J. Baker, Coatbridge, N.B.—Imp. in pumps.
1662. C. E. Gray, 75, Great Suffolk-street, Southwark—Imp. in apparatus for extracting, rendering, receiving, purifying, cooling down, and delivering oleaginous and fatty matters or other material treated by steam pressure for extraction.
1664. W. E. Newton, 66, Chancery-lane—An improved mode of making the handles of shovels, spades, dung forks, and other analogous articles. (A com.)
1666. A. V. Newton, 66, Chancery-lane—Improved machinery for breaking and cleaning flax and other like fibre-yielding plants. (A com.)
1668. J. J. H. Gebhardt, Lawrence-lane—An improved fastening for bags, purses, and other similar articles. (A com.)

*Dated 3rd June, 1862.*

1670. G. Gurney, Bude, Cornwall—Imp. in apparatus for production and application of artificial light.
1674. S. Weston, Tenterden, Kent—Imp. in trusses.

*Dated 4th June, 1862.*

1678. G. Peel, jun., and J. Simpson, Manchester—Imp. in the construction, arrangement, and mode of working hydraulic presses, and in the arrangement of force pumps.
1680. W. James, Red-hill House, Dudley, Worcestershire—Imp. in bolts, spikes, and nails, and in apparatus for their manufacture.
1682. R. Roe, Friargate, York—Imp. in planes for tonguing, working sash fillisters, or other similar purposes.
1684. G. B. Toselli, 41, Threadneedle-street—Imp. in apparatus for freezing and cooling liquids and mixing syrups.
1686. G. H. Sanborn, 209, Fulham-road, Brompton—Imp. in refrigerators. (A com.)
1688. E. Schütz, Brompton—Imp. in rotary engines.
1690. A. V. Newton, 66, Chancery-lane—Imp. in the construction of grain and grass harvesters. (A com.)

*Dated 5th June, 1862.*

1692. G. Rydill, 6, Wardrobe-place—An improved hydraulic pump or engine for raising liquids and obtaining motive power, also applicable to the ventilation of mines and other useful purposes.
1694. J. Bell, Portobello, Midlothian—Imp. in fastenings for railway chairs.
1696. J. M. Stanley and J. Stanley, Sheffield—Imp. in stoves or apparatus for diffusing heat.
1700. W. Rowe, East India-road, Poplar—An improved forgo and bellows.

1702. G. Hadfield, Bootle Village, near Liverpool—Imp. in the manufacture of casks or barrels, and in the machinery or apparatus to be used in the construction of the same.

*Dated 6th June, 1862.*

1704. J. Verity, 1, Carlton-road, Kentish-town—An improved composition for coating and preserving walls or other exposed surfaces.
1705. G. Darlington, Much Park-street, Coventry—Imp. in the manufacture of ribbons.
1708. A. V. Newton, 66, Chancery-lane—Imp. in knitting machinery. (A com.)

*Dated 9th June, 1862.*

1714. J. Lovegrove, Dalston-lane, Hackney—Imp. in apparatus for inspecting small sewers and drains, and for facilitating the removal of obstructions therein.
1716. A. Ford, Priory, Battersea—An improved method of protecting beer and other fluids from the direct action of atmospheric air.
1718. J. Keeling, Reading, Berkshire—Imp. in apparatus for the manufacture of gas.
1720. C. W. Hockethorn, Saint Ann's-road, Brixton—Improved apparatus for obtaining and applying motive power.

*Dated 10th June, 1862.*

1724. W. Smith, 19, Salisbury-street, Adelphi—Imp. in photography. (A com.)
1726. J. Kinlock, and T. Edmeston, Preston—Imp. in looms for weaving.
1730. H. C. Jennings, Great Tower-street—Imp. in the preparation of skins for driving bands and harness traces.

INVENTION WITH COMPLETE SPECIFICATION FILED.

1735. G. Haseltine, 100, Fleet-street—Imp. in roofs for railroad cars and hurricane decks of vessels. (A com.)

## PATENTS SEALED.

*[From Gazette, June 20th, 1862.]*

- |  |   |
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| <i>June 20th.</i>                                | 3251. M. Henry.                                   |
| 3205. T. Morris, R. Wear, and E. H. C. Monckton. | 3268. J. Haslam.                                  |
| 3215. J. R. Bodmer.                              | 3. J. H. Johnson.                                 |
| 3216. C. Smith.                                  | 39. A. V. Newton.                                 |
| 3217. J. Rosindell.                              | 129. R. Romaine.                                  |
| 3218. C. Smith.                                  | 140. W. S. Mappin.                                |
| 3229. J. Jones.                                  | 163. L. Martin.                                   |
| 3230. T. Standing.                               | 183. J. Cornforth and B. Smith.                   |
| 3234. J. Shepherd.                               | 403. T. Renison.                                  |
| 3239. T. Silver.                                 | 755. J. A. Jaques, J. A. Fanshawe, and F. Jaques. |
| 3241. P. A. Le Comte de Fontaine-Moreau.         | 1173. G. Scoville.                                |

*[From Gazette June 24th, 1862.]*

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|--------------------------------------|---------------------------------|
| <i>June 24th.</i>                    | 55. J. Stenhouse.               |
| 3228. T. Simmons and T. Timmins.     | 68. B. Thompson.                |
| 3235. R. Needham.                    | 77. W. H. Preece.               |
| 3237. J. N. Palmer.                  | 118. J. A. Knight.              |
| 3246. W. Turner & J. W. Gibson.      | 144. W. Bosler.                 |
| 3243. T. W. Atlee.                   | 150. J. Stenhouse.              |
| 3245. R. A. Brooman.                 | 388. W. D. Allen.               |
| 3255. J. Gordon & B. Henderson.      | 719. J. Grant.                  |
| 3267. W. Spence.                     | 929. G. Collier and J. Collier. |
| 3274. E. T. Hughes.                  | 1040. J. T. Grice.              |
| 53. C. Pilkington and T. Pilkington. | 1304. A. V. Newton.             |

## PATENTS ON WHICH THE STAMP DUTY OF £50 HAS BEEN PAID.

*[From Gazette, June 24th, 1862.]*

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|-------------------|-------------------|
| <i>June 17th.</i> | <i>June 21st.</i> |
| 1494. L. D. Owen. | 1567. B. Standen. |
| <i>June 20th.</i> |                   |
| 1492. J. Meikle.  |                   |

## PATENTS ON WHICH THE STAMP DUTY OF £100 HAS BEEN PAID.

*[From Gazette, June 24th, 1862.]*

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|----------------------|----------------------|
| <i>June 16th.</i>    | <i>June 21st.</i>    |
| 1442. F. W. Mowbray. | 1418. J. L. Jullion. |
| <i>June 20th.</i>    |                      |
| 1431. W. Teall.      |                      |

## LIST OF DESIGNS FOR ARTICLES OF UTILITY REGISTERED.

No. in the Register.	Date of Registration.	Title.	Name.	Address.
4486	June 5	A Flooring Cramp .. .. .	Richard Madeley .. .. .	Birmingham.
4487	" 10	Reversible Target .. .. .	James Ashburner .. .. .	{ Lieut. 1st Cheshire Engineer Volunteers.
4488	" 14	{ Perpetual Calendar for Articles of Jewellery .. .. .	Allen and Felton .. .. .	Birmingham.
4489	" 18	Tournure or Crinoline .. .. .	Richard Kemsley Day .. .. .	47, Aldermanbury, E.C.
4490	" 20	A Screw Bottle Stopper .. .. .	Farrow and Jackson .. .. .	16, Great Tower-street, E.C.